

Opinion I was busted by the light police. They had a point.



By [Dana Milbank](#)

Columnist | [+ Follow](#)

May 5, 2023 at 8:00 a.m. EDT

Just eight weeks after I bought a place in the Virginia countryside, I was busted by the light police.

First came an email from somebody who lives across the valley from me. “Your new place has a lot of intense white, all-night exterior illumination that I don’t recall before,” he wrote. “From our front windows, it sort of looks like the scene in ‘E.T.’ where the spaceship has landed.”

I apologized, explaining that I had merely turned on the existing exterior lights of the home, which had been vacant, and therefore dark, for months. I said I would install some new bulbs that brighten only when motion is detected, and I thought the matter closed.

Two weeks later, I got another email. The guy across the valley had turned me in to the “Dark Sky Committee” of the Rappahannock League for Environmental Protection. The committee wrote to say it had been made aware of my lighting and it was prepared to send a representative to my home to “help you figure out your best options” to darken the mood.

I fought for my right to light. “I won’t be bullied,” I told a member of the committee. Happily, I remain a free man today and have thus far avoided a dark cell in lighting jail.

It was an annoying welcome to my new community — but in retrospect, I’m grateful to the Dark Sky Committee. Its members have no authority (there’s no law restricting my lumens), but they were persuasive. It turns out my lights weren’t doing much harm to neighbors, but they were doing a whole lot of harm to other living things.

Night skies have been getting nearly 10 percent brighter per year over the past decade, American and German researchers reported in January, a doubling in brightness every eight years. The dramatic growth of LED lights, and the bluish, short-wavelength light they give off, compounds the “skyglow” effect of light pollution. Light-polluted skies cover an estimated 80 percent of the world’s population and 99 percent of the U.S. and European populations, another international group of researchers found several years ago. Here in North America, 80 percent of us can no longer see the Milky Way when we look at the night sky.

That’s a shame for humanity. But it’s much worse for the insects, birds, reptiles and mammals that have had their ecosystems disrupted by the sudden change. In the evolutionary blink of an eye, artificial light has altered migration, mating, foraging, pollination and predation rhythms that developed over eons. Light pollution isn’t as severe an ecological threat as climate change or habitat loss, but it’s accelerating the decline of many animal populations.

Follow Dana Milbank's opinions



And, unlike climate change and habitat loss, this problem has a cheap and painless fix: Just turn down the damn lights.

I asked Torney Van Acker, a retired engineer on the Dark Sky Committee, to visit my home one night for a demonstration. With my “E.T.”-spaceship lights on, we stood outside and he aimed his light meter at the zenith. Using a measure of brightness called “magnitude per square arc-second,” the brightest, Monday-Night-Football night sky is about 16 mpsas, and the darkest sky, with zero light pollution, is 22. The sky above my home scored 18.65 — what you’d expect in a brightly lit suburb.

We turned the lights off and the darkness score shot up to 21.23 — that’s *100 times darker* than before, Van Acker said, and typical of a rural night sky. Though there was a crescent moon and still a faint glow in the West from the setting sun, thousands of stars revealed themselves as our eyes adjusted. The Big Dipper pointed us to the North Star and to Deneb, which led us to Vega and the Lyra constellation in the northeastern sky, from which a shooting star, part of the Lyrid meteor shower, streaked above us. The Milky Way formed a river from horizon to horizon.

“You’ve got a good sky,” Van Acker remarked. I felt oddly flattered — and suddenly protective of it.

This was the sky humans took for granted for almost all of our history. In 1901, the conservationist John Muir wrote that “the floods of light from the stars ... must always be wild, for man can change them and mar them hardly more than can the butterflies.”

He was wrong. Man found a way to blot out the floods of light from the stars.

“For 4½ billion years there was no artificial light at night. It’s really only in the last five human generations that we transformed that,” says Ruskin Hartley, who runs the International Dark-Sky Association in Tucson. “It’s one of the most profound transformations of our environment.”

Light pollution, along with climate change, pesticide use and habitat loss, is driving the decline of some 40 percent of insect species, with the global population of insects shrinking by an estimated 2 percent per year in what some call an “insect apocalypse.” That threatens the pollination of crops and plants and, ultimately, the entire food web. Light pollution is also contributing to the decline in bird population. The number of birds in the United States has dropped by 29 percent since 1970, which means nearly 3 billion fewer birds in our skies, according to a comprehensive study by the Cornell Lab of Ornithology and others.

Insects, drawn to light, are fried or become easy targets for predators. Bright lights lure nocturnally migrating birds and sea birds into the danger of urban areas, and millions of birds die in collisions with floodlit buildings and communications towers. Sea turtle hatchlings are likewise drawn to artificial lights — and into the jaws of predators.

Lights at night also act as barriers to nocturnal animals, ranging from bats to mountain lions, fragmenting their habitats and marooning them on ecological islands. Predatory creatures — certain snakes, salamanders, small mammals, insects — that rely on the darkness of a new moon to find food no longer have that protection.

“The dark places are a refuge,” says Travis Longcore, a professor at UCLA’s Institute of the Environment and Sustainability. But now, “you have light pollution and skyglow that is as bright as the full moon,” and that means certain animals “don’t come out to forage when they should because it’s a danger signal if it’s too bright.”

Animals find their circadian and seasonal rhythms disrupted by artificial light. Urban birds call earlier in the morning, altering the mating process. Plants produce flowers and fruit at the wrong times. And humans lose sleep because of artificial light (whether from streetlights or our digital devices), potentially contributing to increased obesity and cancer.

“There’s days of research that one could go through on how physiology is affected,” Longcore says, “but it all makes sense when you think that this planet has had day/night and lunar cycles for the whole period of the evolution of life.” Until now.

The good news is the damage could be easily reversed. The biggest share of light pollution comes from commercial sources — gas stations, strip malls and the like — followed by outdoor sports facilities. After that comes residential lights, streetlights and industrial lights. Municipalities can regulate much of that light pollution, and some already do: dimming streetlights during certain hours, requiring dark-sky-friendly exterior lights in new construction and renovations, and simply turning off lights that serve no public safety purpose.

Each of us has control over residential light pollution, which contributes roughly 10 to 20 percent of the total. I called in the light police to show me what to do. They toured the perimeter and gave me a battle plan.

When I eventually update the house, they advised, I should lose the floodlights and the candelabra-style porch lights and sconces. Those fixtures, by exposing the naked bulb, scatter light upward and sideways rather than downward, where it is needed. Replacement fixtures (the International Dark-Sky Association has a list of approved ones) should face down and the canopy should shield the bulb on the top and sides. Dimmers and timers help, too.

Even without replacing the items, there are plenty of cheap fixes that I’ve already made: motion-detecting smart bulbs; “warm” bulbs (ideally 2700 kelvin or less) that cast a yellowish hue rather than the bluish one that contributes most to skyglow; nothing more than 1500 lumens, or about 100 watts; and, of course, turning off some lights. The last act requires me to suppress my fear of the dark and to remind myself that more illumination doesn’t necessarily mean more security. The bugs haven’t told me so themselves, but I’m guessing they feel better now, and so do I.

In the end, Van Acker, of the Dark Sky Committee, played the good cop. “You’re one little fish in a pond,” he reassured me. “Your lights aren’t going to make much difference one way or the other. But it’s all cumulative.”

To spread the gospel, Van Acker and his committee got the Rappahannock County Park certified as an International Dark Sky Park, one of only two in the capital region (the other is Sky Meadows State Park in Delaplane, Va.) Now, they’re trying to get dark-sky friendly lighting at a massive, 761-unit housing and retail development called StoneHaven going up just across the county line, near Warrenton, Va. So far, the developers — the Lennar Corporation and Saadeh Partners — haven’t complied. (Neither developer responded to my inquiry.)

Developments such as those are lighting up rural night skies. Since the Rappahannock County Park earned its certification in 2019, the skies above it have brightened measurably, to 21.2 mpsas from 21.3.

Standing with me in the park one night, Van Acker pointed to a glow in the north: “That’s a light dome from Front Royal.” To the east, the clouds reflected the lights of Warrenton. To the south, a light dome from Culpeper. To the west, over the mountains, a light dome from Luray. A park neighbor’s floodlights and planned construction in Washington, Va., are bringing the light pollution ever closer.

But there’s still something special about the night skies over this piece of the Virginia piedmont. On a clear night such as this, 4,000 stars are visible. In the capital, I can see perhaps a dozen. Outside of Maine and West Virginia, it’s “about the darkest corner of the East Coast,” Van Acker tells me.

“Dark” is a bit of a misnomer. On this night, the sky bursts with starlight. In the West, Venus and the Seven Sisters dazzle. Overhead, Ursa Major and Leo sparkle. And every now and then, another Lyrid meteor streaks out of the northeast, at 29 miles per second.

When the ancients gazed heavenward, they saw much the same sky. Ptolemy mapped the same constellations. The Chinese recorded their observation of the Lyrid meteor shower more than 2,700 years ago.

Will we be among the last to see such wonders before a haze of man-made blue light conceals the night sky from future generations? We owe it to them, and to all creatures that depend on the dark, not to let that happen.